

In the Claims:

Please amend claim 4 as follows:

4. (Amended) [An] The apparatus as defined in claim 2 [or 3], **characterised** in that it comprises a substantially hemispherical chamber, the end of the evaporator tube arrangement forming the plane side thereof.
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A clean copy of claim 4 amended is as follows:

- A² B²
4. (Amended) The apparatus as defined in claim 2, **characterised** in that it comprises a substantially hemispherical chamber, the end of the evaporator tube arrangement forming the plane side thereof.
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Please add new claims 5-10 as follows:

5. The apparatus as defined in claim 3, **characterised** in that it comprises a substantially hemispherical chamber, the end of the evaporator tube arrangement forming the plane side thereof.
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A
6. A method of feeding water to heat transfer surfaces of a falling film evaporator having vertical evaporation channels, the method comprising:
spraying drops of water with absorbed atmospheric gases to distribute the water over upper ends of the vertical evaporation channels;
simultaneously with the spraying, separating the atmospheric gases from the water.
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7. The method as defined in claim 6 further including:

collecting the sprayed droplets into a layer of
water above the upper ends of the vertical evaporation
5 channels;

separating additional atmospheric gases from the
water layer;

feeding water from the water layer into the
upper ends of the vertical evaporation channels.

8. An apparatus for removing dissolved
atmospheric gases from water, the apparatus comprising:

a falling film evaporator which includes a
plurality of vertical evaporating channels, the vertical
5 evaporating channels having upper ends arranged in an
evaporator channel upper end arrangement;

at least one spraying device which breaks the
water into a spray of droplets having a spray pattern
which corresponds to an area of the vertical evaporating
10 channel upper end arrangement; and

at least one dissolved gas outlet for removal of
the gases separated from the droplets.

9. The apparatus as set forth in claim 8
wherein the vertical evaporating channel upper end
arrangement is confined to a circular area and further
including a hemispherical chamber mounted to the vertical
5 evaporating channel upper end arrangement, the spraying
device being mounted to the hemispherical chamber such
that the spray of droplets is confined within the
hemispherical chamber.

10. The apparatus as defined in claim 8 further
including:

a perforated plate mounted above and separated
from the evaporator channel upper end arrangement, the
5 spray of droplets being sprayed onto the plate, the water
passing through perforations in the plate to the
evaporator channel upper ends.